UNITED NATIONS

TD

United Nations Conference on Trade and Development

Dist.
GENERAL

TD/B/CN.4/46
28 March 1995
Original: ENGLISH

TRADE AND DEVELOPMENT BOARD
Standing Committee on Developing Services Sectors: Fostering Competitive Services Sectors in Developing Countries: Shipping
Third session
Geneva, 6 June 1995
Item 3 of the provisional agenda

[SHIPPING]

FOSTERING COMPETITIVE MULTIMODAL TRANSPORT SERVICES

Competitive services in multimodal transport

Report by the UNCTAD secretariat

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GE.95-51053

Abbreviations

ECE	Economic Commission for Europe
EDI	Electronic data interchange
EDIFACT	EDI for administration commerce and transport
EDP	Electronic data processing
FIATA	International Federation of Freight Forwarders Associations
ICC	International Chamber of Commerce
ICD	Inland clearance depot
ISO	International Organization for Standardization
MMTOs	Mega multimodal transport operators
MT	Multimodal transport
MTO	Multimodal transport operator
NTTFCs	National trade and transport facilitation committees
NVO-MTO	Non-vessel operating MTO
TC 104	Technical Committee 104 (of ISO)
TEU	Twenty feet equivalent unit
UNCITRAL	United Nations Commission on International Trade Law
VO-MTO	Vessel-operating MTO

Introduction

(i) In the conclusions of the report of the Secretary-General of the United Nations entitled "Comprehensive analysis of the activities of the United Nations system in the field of transport"[1] it was recognized that the links between maritime transport, port facilities and land transport have been multiplied by the growing use of containers and multimodal transport (MT) services. These developments necessitated international efforts towards harmonizing, in an integrated manner, governmental policies on maritime transport viewed in close conjunction with other modes of transport. As a result, arrangements were made within the United Nations system for UNCTAD to deal, on a global scale, with the subjects of MT operations and containerization.[2] Subsequent decisions of various United Nations bodies have considerably expanded and updated the scope of competence of UNCTAD in this field to embrace the entire spectrum of the transport sectors involved taking into account new developments in the fields of MT operations, containerization and technological developments.

(ii) When the Standing Committee on Developing Services Sectors, Fostering Competitive Services Sectors in Developing Countries - Shipping, at its first session, drew up its work programme in the fields of shipping, ports and multimodal transport, it decided that the tasks specified in this work programme should be "for the period up to the ninth session of the Conference".[3] At its second session the Standing Committee decided to make MT one of its main items for consideration at its third session in order to allow for a more in-depth discussion of the subject and of the background documentation prepared by the UNCTAD secretariat[4] for the second session. At the closing meeting of the second session the point was made that the Standing Committee should assure itself that all outstanding items of the work programme had been or would be completed by the time of UNCTAD IX.

(iii) The present document shows that all items of the work programme of the Committee in the fields of multimodal transport, containerization, logistics and technological developments will have been completed by UNCTAD IX. There are, however, other issues which require study in these fields since they have a dynamic and progressively developing character. The developments in the transport industry, such as the effects of liberalization of services and increased competitiveness, the evolution of MT operations into physical distribution, multimodal logistics and total transport services, as well as the increasing need for consideration of environmental, safety and quality of services issues, are at the cutting edge of modern transport technology. From this it becomes evident that their promotion will have a major impact on the fostering of competitive MT services, not only in (intercontinental) deep-sea shipping, but equally in the connections to other modes of transport such as feeder services, coastal or short-sea trades.

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1 *Comprehensive analysis of the activities of the United Nations system in the field of transport*, (E/5947).

2 See *Report of the Committee for programme and co-ordination on the work of its seventeenth session*, (A/32/38), p. 7.

3 *Report of the Standing Committee on Developing Services Sectors: Fostering Services Sectors in Developing Countries - Shipping on its first Session* (TD/B/39(2)/5), p. 14.

4 *Containerization and standards* (UNCTAD/SDD/MT/2), *Mega Multimodal transport operators and mega carriers* (UNCTAD/SDD/MT/4) and *Multimodal Transport and Trading Opportunities* (UNCTAD/SDD/MT/5).

(iv) In order to give an overview of the possibilities available to the Standing Committee for further action in these fields, the secretariat has prepared a background paper.[5] Furthermore, the secretariat is placing before the Standing Committee the draft of the Multimodal Transport Handbook[6] to obtain inputs from the Committee on the suggested contents of this handbook. Once these comments have been received, the handbook will be finalized before the holding of UNCTAD IX. These two documents should also be considered at the present session of the Standing Committee.

(v) In order to respond to the demands for information the UNCTAD secretariat has collected information on the subjects mentioned above and disseminated this via its regular Multimodal Transport Newsletters (MT Newsletter), the annual Review of Maritime Transport, and through its *ad hoc* deliveries of its training courses in multimodal transport. However, these media are, by their very nature, unable to treat any particular subject in the depth it may warrant, hence the need for the Standing Committee to consider recommending to the Trade and Development Board further action in the fields of multimodal transport, containerization, logistics and technological developments. In this connection attention is drawn to the fact that many developing countries consider UNCTAD as their "main source of information on developments in multimodal transport".[7]

(vi) Chapter I presents the work carried out in accordance with the work programme adopted by the Standing Committee at its first session. Chapter II presents a list of issues for possible further action which have been identified either in the documentation presented to the Standing Committee, by the Group of Experts on MT which held its session in March 1992[8] or in the present report. Some background information and suggestions are given to allow the Standing Committee to take a decision on how it wishes to treat these issues and what further activities may be undertaken in the fields of multimodal transport, logistics, containerization and technological developments.

Summary and conclusions

1. The Committee on Shipping, at its fourteenth session, considered a detailed inventory of the studies on multimodal transport, containerization and technological developments carried out by the secretariat under its programme of work in these fields as well as proposals in relation to the future work[9] and decided to convene a group of experts on MT in order, in particular, to suggest elements of a future programme of work for the Committee in the field of multimodal transport,

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5 *Facing the challenge of integrated transport services* (UNCTAD/SDD/MT/7).

6 Draft *Multimodal Transport Handbook* (UNCTAD/SDD/MT/8).

7 *Report of the Standing Committee on Developing Services Sectors: Fostering Competitive Services Sectors in Developing Countries - Shipping on its second session, op. cit.*, para. 50, p. 16.

8 *Report of the Group of Experts on Multimodal Transport* (TD/SD/C.4/342).

9 *Inventory of existing mandates and new draft programme of work in the fields of multimodal transport and technological development* (TD/B/C.4/323).

containerization and technological developments. In so doing, the Committee recognized the need to avoid widening the gap between the developed and developing countries with regard to the implementation of MT and electronic data interchange (EDI), the implications of the emerging trends towards the creation of mega multimodal transport operators (MMTOs), and the possible need for the development of container pools and the use of larger than current ISO standard containers.

2. The Standing Committee on Developing Services Sectors, Fostering Competitive Services Sectors in Developing Countries - Shipping, at its first session, had before it the report of the Group of Experts on Multimodal Transport. This report contains an ambitious draft work programme in the fields of multimodal transport, technological developments, logistics and containerization. However, owing to the relatively short time available until UNCTAD IX and the limited staff resources available within the secretariat, only some of these items were included in the work programme that was subsequently adopted by the Standing Committee. Many of the issues raised by the Group of Experts consequently remain untreated. The present report attempts to evaluate the most important of these "outstanding items" and submit them to the Committee for its consideration and possible action.

3. The present report also proposes that MT may be one way to help safeguard the environment. This may be done, for example, through the "encouragement of the use of less environmentally intrusive modes of transport such as railways, inland waterways and combined transport"[10] when these are part of a MT chain which includes an ocean transport leg. The New Delhi Action Plan states *inter alia* that "...the adoption of more environmentally friendly technologies... will be promoted through the exchange of information and expertise."[11] This underlines the necessity to stimulate the use of environmentally friendly modes of transport and that "an increased and coordinated effort in research and development is considered essential to improve the efficiency of the ... transport system and to confront at the same time the problems of congestion, safety and environmental damage."[12]

4. Similar sentiments are voiced by the American Transportation Research Board which, in an article in *TR News* 174 entitled "Critical Issues in Transportation", *inter alia*, states that, "only through a strong and aggressive research program can the nation use new technologies and concepts to meet these challenges. Additional funding for transportation may result from defense conversion and technology initiatives at the federal level and from the private sector. Even so, some existing research resources may need to be redirected to respond to the challenges being faced. The Executive Committee's list of critical issues suggests areas for research involvements; following through on these investments can pay the nation dividends well into the 21st century... It is hard to imagine that sustainable development could be achieved without a 'sustainable' transportation system."[13]

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10 *Ibid.* item 5.1, p. 21.

11 *Draft New Delhi Plan of Action on Infrastructure Development in Asia and the Pacific, op. cit.*, para. 5.2.3, p. 18.

12 *Second Pan-European Transport Conference*, Declaration by the Second Pan-European Transport Conference (TRANS/WP.5/R.62), item C. 8., p. 6.

13 "Critical issues in Transportation", TR NEWS, no. 174, September-October 1994, Washington, D.C., pp. 2 & 4.

Chapter I

PRESENTATION OF THE RESULTS OF THE WORK CARRIED OUT TO DATE

This chapter presents the results of the various studies undertaken by the UNCTAD secretariat in response to requests from its governing committee(s).

5. When the Standing Committee held its first session to consider its work programme in the fields of multimodal transport, technological developments, containerization and logistics it had as its starting point the old work programme of the Committee on Shipping and the document "Inventory of existing mandates and new draft programme of work in the fields of MT and technological development" (TD/B/C.4/323) which was submitted to the fourteenth session of that Committee. Furthermore, it had available the "Report of the group of experts on multimodal transport" (TD/B/1320) which, in accordance with the mandate of the group, contained a proposal on a future programme of work.

6. In view of the relatively short life of the Standing Committee, it adopted a work programme which it was certain could be completed by the time of the ninth session of the Conference. Consequently, not all of the proposals contained in the report of the Group of Experts were included. The MT component of this work programme contained three main elements:

(a) Analysis of the impact of MT systems and tariffs on trading opportunities in the context of liberalization and privatization;[14]

(b) Elaboration of a reference document (MT Handbook) for officials and practitioners;[15] and

(c) Monitoring of developments in containerization and related transport technology with potential impacts, particularly for developing countries, on countries transport infrastructure and investment requirements, including developments in the field of standardization of containers.[16]

7. In addition to these new requests, one work item was outstanding from the old mandate of the Committee on Shipping. This was a request,

> "to make available... a report on the practical problems faced by Governments and commercial parties involved in MT and/or container operations including the possible effects of mega multimodal transport operators..."[17]

8. In response to the first of these four items the secretariat prepared, for the second session of the Standing Committee, the report "Multimodal transport and trading opportunities"

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14 *Report of the Standing Committee on Developing Services Sectors: Fostering Competitive Services Sectors in Developing Countries - Shipping on its first session* (TD/B/39(2)/5, para. 8, p. 15.

15 *Ibid.*, para. 9, p. 15.

16 *Ibid.*, para. 10, p. 16.

17 *Report on the Committee on Shipping on its fourteenth session*, annex I (TD/B/1264).

(UNCTAD/SDD/MT/5) which shows two ways in which MT and logistics can have an impact on trading opportunities of a country: first, as an efficient transport system serving the country's international trade; and, second, as a means to increase the domestic activity of the national transport sector. It highlights the need to switch from the "old-fashioned" INCOTERMS to those more appropriate for use with MT and stresses the potential benefits obtainable from use of modern transport logistics. Furthermore, it points out that there is a need for traders to modernize antiquated documentary procedures to allow countries to benefit from modern transport technologies. Finally, it exhorts the three types of parties concerned (rule makers, traders and service providers) to interact with each other in order to ensure that both commercial and public interests are taken properly into account.

9. In response to the second item, the secretariat is placing before the Committee at its third session, as one of the two background papers prepared, an outline of a MT Handbook with a possible table of contents and elements of its possible actual contents. This document is entitled "Draft Multimodal Transport Handbook" (UNCTAD/SDD/MT/8). The secretariat has sought the guidance of the Working Party on Multimodal Surface Transport of the International Chamber of Commerce (ICC) on the contents of this document. However, the secretariat would also seek the guidance of the Standing Committee on this draft in order that the handbook may be completed by UNCTAD IX in as useful form as possible.

10. In response to the third item, the secretariat prepared the report "Containerization and standards" (UNCTAD/SDD/MT/2) for consideration by the second session of the Committee. This report analyses the development in container dimensions and their impact on container transport worldwide. After the latest international meetings on container standards it became clear that for the time being there is no global alternative to the present International Organization for Standardization (ISO) standard ISO 668 on container dimensions. Should the need to introduce a new generation of containers be demonstrated by a demand covering deep-sea, coastal, short-sea and inland-transport trades, the report suggests that the resulting implications might be likely to be so great that an international agreement might need to be concluded in order to ensure the orderly harmonization of the provisions for a worldwide system to coordinate on the dimensions of future container equipment with a time-table for their introduction on a global basis. If this is not the case, the industry may continually face a situation in which vested interests impose their own solutions which do not necessarily take into account the requirements of all parties concerned. However, the report goes on to state that the latest situation seems to show a decline in the speed with which oversized containers are being introduced on a global scale and that the problem thus might "solve itself". It would, nevertheless be necessary to keep the situation under review. Another aspect touched upon in the report is the growing awareness of the industry for the need to use ecologically sound and environmentally friendly methods and materials in container production. Since the centres of production are rapidly shifting to the developing countries and the countries in transition, the report suggests that the necessity of sharing experiences in this field might be growing and it suggests that the holding a seminar on the environmental aspects of container production might be pertinent.

11. Finally, in response to the last outstanding item from the now suspended Committee on Shipping, the secretariat prepared, also for consideration by the second session of the Standing Committee, a report entitled "Mega multimodal transport operators & mega carriers" (UNCTAD/SDD/MT/4). This document analyses the development of the so-called mega MTOs (MMTOs), or mega carriers.

While the report suggests that the development of mega carriers may have a slight negative impact on freight rates to and from "feeder ports", it states that their overall effect on world trade is beneficial and that the development of the hub-and-spoke concept reduces the need for heavy investment in port infrastructure. The report goes on to say that the impact of mega carriers on other transport operators will be significant and may relegate many smaller carriers, be they from developed or developing countries, to those of feeder operators and subcontractors for the mega carriers. Consequently, it urges such transport providers to broaden and strengthen their services to meet future challenges. This may make it possible to foster trade efficiencies and, at the same time, encourage the development of a strong, competitive domestically controlled transport industry. Finally, the report stresses that in spite of predictions that mega carriers would soon dominate world transport, a rise has been seen of so-called "niche operators" that compete successfully on their chosen routes.

12. The other background paper prepared for this session, entitled "Facing the challenge of integrated transport services",[18] attempts to address some of the trends regarding technological and operational developments in modern multimodal transport. It looks at some of the practices used in developed countries and suggests ways in which these may be applied in developing countries and countries in transition. It points out that governments must ask themselves some fundamental questions as concerns the application of MT services and warns that some of the answers may have a negative impact on indigenous transport providers. However, the paper suggests that developing countries should consider MT as one vehicle to increase South-South and South-North trade and that the subject of the growth of MMTOs should be kept under review in order to ensure that fair competition is maintained. It also suggests that the experience of national trade and transport facilitation committees (NTTFCs) which have been established in some developing countries could be presented at a global forum in order that other developing countries and countries in transition might learn from their experience and possibly set up similar committees themselves. This would allow governments the opportunity of holding in-depth discussions to reach an acceptable balance between liberalization and protection of national interests in the transport field. Furthermore, it would enable countries avoid repeating mistakes made by others or "reinventing the wheel", thereby leap-frogging onto a higher level of development.

13. Owing to shortage of time, no substantive discussion took place of any of the three documents placed before the second session of the Standing Committee and for this reason the Committee decided to make MT one of the main substantive items of its third session. While the Committee may wish to request the secretariat to conduct additional research on one or more of these issues and take note of different elements of the reports submitted to its second and third sessions, other areas may require the Standing Committee to consider in more depth what further action, if any, it might wish to take. These are set out in chapter II. In order for Governments and the private sector to take appropriate measures to ensure that developing countries and countries in transition will not become the perennial losers, it is suggested that the Standing Committee may wish to recommend to the Trade and Development Board that these subjects be placed on the agenda of UNCTAD IX together with other subjects in the maritime transport field as key components in fostering the development of trade.

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18 *Facing the challenge of integrated transport services* (UNCTAD/SDD/MT/7).

Chapter II

OUTSTANDING ISSUES

This chapter lists those issues that have been identified as possibly warranting further attention by the industry, governments and the Standing Committee and makes some suggestions as to the manner in which such future work might be undertaken.

14. On the basis of the documents referred to in chapter I as well as the Report of the Group of Experts on MT and recent developments, the Standing Committee may wish to consider giving further attention to the potential impact of these subjects on developing countries and countries in transition and on how it wishes to treat them. A summary of the issues identified is presented below (not in order of priorities):

(a) *General policy issues:*

(i) The effects of liberalization policies and increasing competitiveness on the MT sector;
(ii) The question of whether there are market entry barriers to MTOs and freight forwarders to operate as principals not as subcontractors;
(iii) The development of strategic alliances between domestic and foreign transport providers and the local manufacturing industry, particularly in the context of MMTOs' operations;
(iv) The development of national trade and transport facilitation committees;
(v) The possible need for the establishment of a set of voluntary minimum standards for MTOs, similar to the successfully developed Standard Conditions for Shipping Agents.[19]
(vi) The modernization of banking and insurance procedures, connected to MT operations, to facilitate the movement of goods; and
(vii) The on-going process of introduction of MT laws and regulations.

(b) *Technical issues:*

(i) The impact of the introduction of EDI in the transport industry, particularly with reference to MT operations;
(ii) Development of telematics as an alternative to electronic messaging;
(iii) Development and use of software tools; and
(iv) The continuing development of container sizes and standards and their impact.

(c) *Operational issues:*

(i) The feasibility of creating national/subregional container pools among MTOs;
(ii) The migration by transport service providers from developed countries from MTOs into physical distribution, multimodal logistics or "total transport" providers;
(iii) The impact of the development of inland clearance depots (ICDs) and logistics platforms

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19 *UNCTAD Minimum Standards for Shipping Agents* (UNCTAD/ST/SHIP/13).

on freight forwarders and MTOs;

(iv) The use of inland waterway transport, railways and short-sea shipping operations in MT to reduce the negative ecological effect of traditional transport; and

(v) The introduction or use of quality standards for MTOs and freight forwarders.

15. In order for the Standing Committee to make its decision on possible future actions, each of the above subjects is treated below.

A. Effects of liberalization policies and increased competitiveness on the MT sector

16. One of the aims of liberalization has been to eliminate central control over the production and pricing of goods and services as well as the allocation of resources and to transfer economic decision making to the private sector. However, this has not been completely successful everywhere. Experience has shown that rapid privatization and liberalization will not be enough to ensure recovery and growth. One reason may be that the (newly) privatized sector does not have the means and capacities to deal efficiently with the new competitive climate in which it finds itself.

17. Liberalization of the MT industry is likely to be a byproduct of more general liberalization policies adopted by a country. The national treatment[20] of foreign MTOs will stimulate competition and increase opportunities offered to traders. If a domestic market has been opened fully to foreign companies - in this case transport providers - the result may be increased activities of these companies in competition with domestic transport providers. The consequences of such a policy are both good and bad: good for the consumer since transport costs are likely to fall, bad for the employees who may be made redundant when uncompetitive companies downsize or fail.[21] The effect of this development might therefore to be a gradual transfer of transport capabilities from domestic to foreign transport providers. To many governments this is an unpalatable choice.[22]

18. On the other hand, experience in some newly industrialized developing countries has shown that the objective of creating a viable market-oriented MT services sector may be combined with the presence of a large public sector on a transitionary basis, so long as it operates on commercial principles.

19. If transport providers from developing countries and countries in transition are to survive as independent carriers, they need to learn how to operate on a commercial basis in a competitive environment, and governments must see to it that they will be free to act swiftly to changing market conditions. Whereas it may be possible for some operators (e.g. road hauliers or freight forwarders) to survive as independent entities, many others continue to be governmental institutions or at least to have the State as the main shareholder. This, in many cases, means that they are forced to operate within the confines of bureaucratic conditions which often compels them to adopt

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20 "National treatment" means that foreign transport providers, once they have entered the local market, are treated in a manner no less favourable than the treatment accorded to similar domestic services and service providers.

21 See, for example, *Liberalizing International Transactions in Services* (UNCTAD/STCI/7), p. 118.

22 See, for example, Yilmaz Akyüz, "Reform and Crisis in the Transition Economies", *Privatization in the transition process - recent experiences in Eastern Europe* (UNCTAD/GID/7), New York & Geneva, 1993, p. 7.

uncompetitive management structures leaving them at the mercy of strong, independent foreign competitors that are able to react rapidly to changing market conditions. To alleviate this situation Governments might decide to contract out public services through service or management contracts or through complete privatization.

20. However, the increasingly competitive conditions which are a result of the introduction of liberalization and deregulation policies, coupled with the growing importance of new logistical trends in the production and distribution systems, is creating unexpected problems in the MT sector. For example, the need for MTOs to be able to quote door-to-door rates is a prerequisite for efficient MT services. This subject is currently exercising the minds among liner conferences which service the European Union because of a ruling by the European Commission that disallow the quotation by conference of multimodal freight rates.

21. The Standing Committee may wish to evaluate the necessity of carrying out an assessment of the impact of the liberalization policies and increased competitiveness now being introduced throughout the developed world, on MT providers in developing countries and countries in transition with a view to identifying the most suitable transport policies for these countries to participate on a fair and equitable basis in the international transport of their foreign trade.

B. Possible entry barriers to MTOs

22. There is hope for the emergence of a vibrant freight forwarding industry in developing countries and in countries in transition, which over time can develop into MTOs and multimodal logistics providers. However, such hope can only reach fruition if these companies are allowed to compete on an equal basis on access to business to and from their own countries.

23. There is widespread suspicion, among transport providers in developing countries, that they in fact do not have equal access to foreign markets. One may ask if this suspicion is the consequence of poorly managed transport enterprises? In any case, it is matched by a parallel suspicion, by MTOs from developed countries, that they do not have open access to the transport industry in developing countries. Here, one may ask if the limited open access is a result of small markets already saturated by domestic and international transport providers?

24. The Standing Committee may wish to give further consideration to this matter.

C. Development of strategic alliances between domestic and foreign transport providers, particularly in the context of MMTOs' operation

25. Even if the suggestions contained in the section "Summary and Conclusions" of document UNCTAD/SDD/MT/4 concerning the definitions of MMTOs are not accepted as "definitive", the fact remains that the development of MMTOs has brought to bear new competitive pressures on the local transport industry in many developing countries. This in turn has meant that the fragmented freight forwarding industry must come to grips with its own major weaknesses: minuscule size, low professional status and poorly educated staff.

26. The report stresses that MMTOs will have a significant impact on transport industries of developing countries, both at the national and international levels, and points out that the future for many of the traditional liner shipping companies, for domestic road hauliers, for rail carriers, and for non-vessel operating MTOs (NVO-MTOs) throughout the developing world, and indeed among the smaller developed countries, is likely to be as feeder service providers and subcontractors for the MMTOs.

27. The report states that this prospect may not yet be imminent in many developing countries, and suggests that there may still be time to plan to broaden and strengthen present locally owned transport providers to meet the future challenge. With the globalization of trade and transport, the need to form strategic alliances, for example, through the creation of joint ventures, is becoming increasingly important for transport providers in developing countries and countries in transition. Support should be given to the possible development of such strategic alliances between domestic and international transport providers and the local manufacturing industry.

28. A constructive way of promoting MT is to monitor world-wide developments in transport technologies and publishing the findings. This would avoid "re-inventing the wheel" and making infant-industry mistakes, by "leap-frogging" into recognized transport choices regarding transport infrastructure, technology and policies. The Standing Committee may consider that there might be a need to monitor the continuing development of MMTOs, which continue to grow in size and shrink in numbers. The Standing Committee may also wish to propose specific actions for national MT providers in developing countries and countries in transition on actions to take to survive and prosper.

D. The development of national trade and transport facilitation committees

29. The secretariat has observed, during its technical cooperation activities, that, in many developing countries and countries in transition, there is often no proper forum for discussion of problems of trade and transport issues of mutual concern. This statement could possibly be extended to a number of developed countries.

30. Governments often have no specific entity through which to treat international MT issues. Departments of ministries deal with unimodal aspects (sea, air, road, rail) only. This makes MT a kind of "no-man's land" where coordinated decisions are rendered difficult. As a result, there is very little awareness within public offices of the possible beneficial effects of MT in the context of international trade. This situation limits possibilities for the promotion of MT which Governments could use to stimulate national demand and supply for modern transport services. The coordination of various planning authorities is essential to create such an awareness at the national level.

31. In many countries, there is often little or no official point of contact between the private and public transport sectors. This is all the more disturbing because the public transport sector is completely national, and the private partly foreign. Working relations between governmental departments, on the one hand, and private enterprises, on the other, appear to be marked by mutual mistrust. Any strategy for improvement of this situation might involve a profound change in the mind-set of both parties.

32. The secretariat, whenever it has had the opportunity, has therefore encouraged the establishment of NTTFCs comprising all the players in international multimodal transport: the public sector, shippers, agents, Customs, ports authorities, bankers, insurers and transport providers. When these meet regularly to discuss ways for the removal of bottlenecks, it has been discovered that when the members of these committees grasp the problems of the other members, solutions can often be found at the local level as they are able to bring about a better understanding of the complex issues of the MT environment and can recommend for consideration operational and policy measures to the Government and other parties concerned. In this connection it may be of interest to note that a similar proposal has been made in the United States (*viz.* to create an "Office of Intermodal Freight Transportation" to be located "within the office of the Assistant Secretary for Policy and International Affairs"[23]) because of an observation made in an earlier report prepared for the National Council on Public Works Improvements, a body established by the United States Congress to review the state of the nation's infrastructure. Intermodal transport was one of nine major areas singled out for separate study. The report stated: "Perhaps the most important conclusion that emerges from this review of intermodal transportation is the lack of intermodal coordination particularly at the national level. [There is a] lack of a central focus point where the national implications of intermodal transportation can be taken into account (Revis and Tarnoff 1987, 143)".[24]

33. Governments and the local transport industry may consider ways in which the creation of such NTTFCs may be promoted in each country. Once this has taken place, the coordination among neighbouring NTTFCs may bring about harmonization at the subregional level without the intervention of outside parties.

E. The possible need for the establishment of a set of voluntary minimum standards for MTOs

34. As the number of companies which provide door-to-door transport services grows, unfortunately, so does the number of cases of fraud, in this case not perpetuated by companies acting as agents, but by companies which act as principals. The transport press regularly reports cases where MTOs, particularly NVO-MTOs, fail, for one reason or another, to honour their commitment *vis-à-vis* their clients. This was one reason why the United States Congress introduced legislation requiring a USD 50,000 bond by NVO-MTOs operating to or from the United States, an initiative which has already been copied by some other governments.

35. The various national initiatives differ in scope although not in intent. Nevertheless, it would appear preferable to have a more harmonious set of rules in place, if at all possible, voluntary at that.

36. When UNCTAD some time ago, in response to a request from the UNCTAD *Ad Hoc* Intergovernmental Group to Consider Means of Combating all Aspects of Maritime Fraud, including

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23 *Intermodal Marine Container Transportation, Impediments and Opportunities*, Special Report 236, Transport Research Board, National Research Council, Washington, D.C., 1992, p. 114.

24 *Ibid*, p. 113.

Piracy, drew up a set of Minimum Standards for Shipping Agents, they were very favourably received by the industry and adopted by a number of companies around the world.

37. Consequently, it would seem desirable to draw up a similar set of voluntary minimum standards for MTOs, drawing to the largest possible extent on the earlier developed UNCTAD Minimum Standards for Shipping Agents. This would not only reduce the amount of work required, but would also ensure compatibility between the two sets of rules. This should be done with the assistance of the private sector including FIATA and other NVO-MTO organizations as appropriate.

F. Modernization of banking and insurance procedures to facilitate the movement of goods

38. MT of goods is often hampered by antiquated banking and insurance rules or procedures which prevent traders from utilizing the new INCOTERMS and the latest version of the ICC Uniform Customs and Practices for Documentary Procedures, also known as the ICC500 or UCP500 after the document number of the ICC booklet which sets out these rules.[25]

39. It is not so much a question of lack of approval by the various national committees of the ICC, than of the implementation of the modern rules by local banks and branches of insurance companies which, for example, prevents traders from stipulating the use of MT documents (or door-to-door bills of lading) in their letters of credit. The secretariat is already working with the ICC in Paris to promote the use of these modern rules. However, the task is immense and it would seem useful if more localized training activities could be mounted in developing countries and countries in transition to promote these rules.

G. The on-going process of introduction of MT laws and regulations

40. A major shortcoming in many countries is the lack of regulations governing multimodal transport.[26] In so far as international MT is concerned, this is increasingly causing problems for transport users and providers alike.

41. It is, therefore, beginning to be realized by some, that some rules may be needed.[27] At the international level, the United Nations Convention on International Multimodal Transport of Goods of course exists, however, it only has seven contracting parties[28] and is not yet in force. In its absence, the Committee on Shipping requested the secretariat, in close consultation with the commercial parties, to elaborate a set of voluntary rules on multimodal transport. The secretariat, together with the ICC, consequently updated the ICC Rules for Combined Transport Documents

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25 ICC Uniform Customs and Practices for Documentary Credits (ICC 500), International Chamber of Commerce, Paris, May 1993.

26 See, for example, *Cargo liability and responsibility regulation*,"A barrier to improved efficiency in marine container shipping is the lack of uniform cargo liability and responsibility regulations for international intermodal shipments", Intermodal Marine Container Transportation, *op. cit.*, p. 108.

27 This was, for example, recommended by the ECE Working Party on Combined Transport (No. 24), see *Combined Transport and Coastal Shipping*, (TRANS/R.397), para. 56, p. 15, and para. 119, p. 26.

28 Chile, Malawi, Mexico, Morocco, Rwanda, Senegal and Zambia.

by producing the UNCTAD/ICC Rules for Multimodal Transport Documents. The new Rules have already been adopted by FIATA in their revised "Multimodal Transport FBL" and the Baltic and International Maritime Committee (BIMCO) is in the process of updating its COMBIDOC.

42. A few countries have recently introduced national legislation on multimodal transport, but - except for the five countries of the Andean Pact - not necessarily in any harmonized fashion. Some of these laws have been based on the UNCTAD/ICC Rules, however, these rules were never intended for incorporation into law, and were not shaped for this purpose. It might therefore be useful to take stock of the experiences of different regions on the establishment of subregional MT laws, regulations and administrative procedures.

H. The impact of the introduction of EDI in the transport industry, particularly with reference to MT operations

43. About 10 years ago the Economic Commission for Europe (ECE) began work on creating a standard message framework for EDI. This came to be known as "Electronic Data Interchange For Administration, Commerce and Transport" (EDIFACT). At present about 50 EDIFACT messages for transport have been developed representing about one third of all such messages created. A growing number of users apply these in various branches of the transport sector. Furthermore, several VO-MTOs are working on the production of a guide concerning EDIFACT messages. A number of major ports have already introduced or are introducing EDIFACT messages and the port of Singapore recently decided that all interchange of data concerning the handling of containers must be effected by means of EDIFACT messages as of 1994. Similarly, in the exchange of data between the Customs Authorities of the United States and countries like Singapore and Australia, the data are sent using subsets of the CUSDEC message from one Customs Authority to another.

44. The effects of EDI on MT and MTOs has already been treated in a number of United Nations publications,[29] and in many other papers.[30] From these it is quite clear that the impact of EDI on modern (multimodal) transport is profound and that any organization which chooses to ignore this, does so at its peril.

45. A major question in this connection is that of the possible need of changes in the definition of "writing", "signature" and "document" employed in multilateral conventions and agreements relating to international trade. This subject is being studied by the Working Party on Facilitation of International Trade Procedures of the Committee on the Development of Trade of the ECE (WP.4). The most recent document on this subject[31] (submitted by the Legal Rapporteurs Team

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29 For example, *The Effects of EDP and EDI on Transport Organizations and Users* (TD/B/C.4/AC.11/5), or *Electronic data interchange (EDI) systems for transport related and trade facilitation activities* (ST/ESCAP/1030).

30 For example, "The Commercial Use of Electronic Data Interchange - a Report", American Bar Association, 1990; Raven, John, "Electronic Data Interchange, An Institutional Crossroads", International Data Exchange Association, Brussels, September 1990; or Raven, John, "Electronic Data Interchange and Developing Countries, International Data Exchange Association, Brussels, December 1988.

31 *Legal Aspects of Trade Data Interchange - Review of definitions "writing", "signature" and "document" employed in multilateral conventions and agreements relating to international trade* (TRADE/WP.4/R.1096).

of WP.4) notes that "the current rules concerning international trade transactions may not satisfactorily accommodate the reality of EDI. In many instances, under these rules, EDI messages remain potentially unacceptable as legal means of communication."[32] The report suggests that if the UNCITRAL draft provisions for uniform rules on the legal aspect of EDI (A/CN.9/387) are adopted as a model law, the rules would "eliminate some of the problems identified in this report so far as national laws and non-statutory rules are concerned."[33] However, the ECE report stresses that "the difficulties ... would not be resolved solely by the implementation of a model law unless this were to be adopted as an overriding convention of some kind as that setting global liability limits for seagoing ships, which overrides the Hague Rules. The consequence of such a convention would require careful consideration."[34] It continues that,

> "bringing the subject up should focus minds not only on the current legal impediments but also on the future practical problems of operating certain procedures under the convention when using EDI transmissions. In considering the need to remove a narrow requirement for "writing", thought must also be given to the actual mechanics of the system. Can the existing procedure sensibly be carried out by EDI means? Is it commercially attractive and logistically possible to install equipment at the quayside and goods inward bay which will allow real time unique messages to be transmitted to other parts of the system, in lieu of simple manual endorsement onto existing paper documents?"[35]

Finally, it notes that,

> "forms of authentication other than manual signatures are already permissible under a number of conventions. It would be useful in future work to look beyond the narrow issue of "signatures" to consider authentication in general. Where the conventions do not at present require signatures at particular stages - e.g. when a reservation is entered in a document manually - it may be necessary under EDI, to consider how the authentication of such data is to be established. There will be no need to alter a convention which has no authentication requirement, but at a practical level it may be necessary to develop codes of practice and security procedures which will inhibit fraud in these areas.
>
> The conventions refer frequently to "documents". These references are to the "document" which are the subject of the conventions themselves - e.g. bills of lading, air waybills - but also to other documents such as custom forms. Generally the word "document" is not defined. It may be assumed that a written document was envisaged by the draughtsman as that was the only format then available."[36]

46. The Standing Committee may wish to consider if there is a need for transport providers and users in developing countries and countries in transition to become more acquainted with these developments, particularly the need to adapt to the needs to possible changes in the definition

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32 *Ibid.*, para. 1.6, p. 2.

33 *Ibid.*, para. 1.7, p. 2.

34 *Ibid.*, para. 1.7, pp. 2-3.

35 *Ibid.*, para. 1 11, p. 3.

36 *Ibid.*, paras. 1.12 and 1.13, pp. 3-4.

of "writing", "signature" and "document" all of which are of crucial importance to the trading possibilities of developing countries and countries in transition.

I. Development of telematics as an alternative to electronic messaging

47. Important though the use of EDIFACT may be, developments already seem to have gone one step further. Companies and organizations have begun to realize that it may be more cost effective, and more convenient, simply to interrogate data bases of their partners. Provided certain security measures are observed, interested parties may be able to use the Internet or the World Wide Web facilities for such purposes. For example, by Customs Authority in the country of import may one day wish to access the computer of the Customs Authority (or even the computer of the exporter) in the country of export to verify that a certain shipment is what it is claimed to be. This can be done in "real time" at the time most convenient to the receiving Customs and negates the need for a special message.

48. While such use of telematics is still in its infancy, it would seem prudent for MT users and providers in developing countries and countries in transition to take this new development into account when they upgrade their electronic data processing (EDP) systems.

J. Development and use of software tools

49. The secretariat has developed a number of software tools for use by developing countries and countries in transition. For any software to be of any long-term use, it must constantly be updated and/or upgraded. States members of UNCTAD might wish to consider making such expertise available to the secretariat in order to allow the software to be maintained.

K. Container standards

50. At the governmental level the subject of container standards was raised for the first time at the United Nations/IMCO Conference on International Container Traffic at the end of 1972, which adopted a resolution on container standards for international multimodal transport. In response to this resolution, the Economic and Social Council by its decision 6 (LVI) entrusted UNCTAD with the study of the subject which became a "core issue" of the UNCTAD work programme in the transport field.

51. It must be underlined that when considering this subject there was never any question of substituting the technical work in the field of container standards carried out by ISO. On the contrary, the Group of Experts on Container Standards for International Multimodal Transport, and the *Ad Hoc* Intergovernmental Group on Container Standards for International Multimodal Transport, which were convened according to the a decision of the Trade and Development Board[37]

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[37] Decision 182 (S-X).

to assess the work done by ISO and to determine what future action should be taken in this field, considered that "ISO is the appropriate body to develop international standards".[38]

52. Cooperation between UNCTAD and ISO in the field of container standards has been and continues to be very important. One of the results of this cooperation was the adoption by ISO technical committee no. 104 (ISO/TC 104) of its resolution 71 and by the ISO Council of its resolution 22 in 1978.[39] They requested that whenever proposals were put forward for revisions to the ISO standards ISO 668 (dimensions and ratings) and ISO 1161 (corner fittings) which affect the compatibility, intermodality and modularity of ISO containers, ISO would, through its Secretary-General, in addition to normal circulation to member of ISO/TC 104 and international organizations in liaison, draw these proposals to the attention of all ISO members and to competent United Nations bodies in order to permit the widest possible consultation.

53. The monitoring of the developments in the field of international container standards has permitted the secretariat to draw the attention of ISO to the needs and requirements of developing countries. In this way the secretariat has heightened the general awareness of the fact that the problem of container standards has a political significance which is of importance not only to the private sector, but to governments as well. This has been reflected in the holding of two World seminars on this subject in 1989 and 1992.[40] These seminars were organized by the ECE with the assistance of UNCTAD.

54. At present the main issue in this area is connected with the use of larger-than-present-ISO standard containers and with the venture of the so-called second-generation containers. These developments continue to be closely monitored and the cooperation between UNCTAD and ISO/TC 104 will be maintained in order to safeguard the interests of those countries not represented on this Technical Committee.

L. The feasibility of creating national or subregional container pools among MTOs

55. The continuing growth of MMTOs automatically brings with it a growth in the number of containers these companies control. Even among companies that do not fall within the MMTO category the pooling of individual container fleets is occurring. Pooling of containers obviously allows these companies to benefit from economies of scale. This makes it questionable to what extent container operators (or lessors) in developing countries and countries in transition that only control a few thousand units are able to compete with operators from developed countries.

56. To the extent that it is a question of leasing of containers by container users from developing countries and countries in transition *versus* lessees from developed ones, it seems likely that container lessees in developing countries or countries in transition may obtain leasing rates which do not

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38 *Report of the Group of Experts on Container Standards for International Multimodal Transport* (TD/B/AC.20/1), para. 105.

39 Resolution 71 adopted at the 10th meeting of ISO/TC 104, Genoa, June 1978, on relevance to the work of the *Ad hoc* Intergovernmental Group on Container Standards. ISO Council Resolution 22/1978 (Rev.).

40 *Reports of the Seminars on the Impact of Increasing Dimensions of Loading Units on Combined Transport* (TRANS/SEM.7/4 and TRANS/SEM.10/3).

differ materially from rates offered to lessees from developed countries (although no study has been made of this).

57. However, when it comes to making the most economical use of these containers, the limited size of individual container fleets of transport providers from developing countries or countries in transition may have an important negative impact on their competitiveness and may beg the question of whether it would not be better for them to pool their container fleets to obtain the benefits of economies of scale. In this connection the subject of "grey containers" i.e. containers without any company logo or marking and belonging to a common container pool may warrant consideration.

58. The debate over the potential benefits that may be derived from the use of "grey boxes" has been going on for the last many years and the concept has still to "take off", yet when used in a way that reduces the number of days containers are remaining idle or are moved empty it certainly has merits. For example, the "grey box" concept was suggested to the Transport Council of the European Union by the Commissioner for Competition in a report issued in June 1994[41] as one way of reducing costs.

59. The Standing Committee may wish to consider giving this matter further attention.

M. The migration by transport service providers from developed countries from MT operators into physical distribution, multimodal logistics or "total transport" providers

60. World-wide demand for integrated services has resulted in a continued development of door-to-door transport providers that can organize seamless moves across countries, oceans and continents. In some cases, these services providers are non-asset based companies, for example, international versions of companies which offer domestic intermodal transport services that link specialized carriers through intermodal transportation and information systems. In other cases, they may be asset-based integrated transport providers that offer "one-stop shopping" for MT capacity linking all regions of the world.

61. To survive fierce competition, some companies are going one step further by offering full global third-party logistics services. These companies are capable of providing, in many countries, a full range of services including warehousing, inventory management, order processing, Customs brokerage, transportation and even final-form light manufacturing.

62. This migration by transport service providers from "simple" MTOs into full physical distribution, multimodal logistics or "total transport" providers is opening new opportunities to the transport industry and to the trading community. Developing countries and countries in transition should be aware of the potential benefits which can be derived from this development.

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41 Journal de Transport International, Basel, no. 44/1994, p. 3481.

N. The impact of the development of inland clearance depots (ICDs) and logistics platforms, and their effects on freight forwarders and MTOs

63. Apart from changing the concept of transport, both in physical and organizational terms, ICDs (or distribution centres) have a beneficial effect on the trading and industrial activities of a country or region. Trading activities will be promoted not only by offering improved groupage facilities, but also because they will facilitate participation in trade by intermediaries previously engaged mainly in local trade and transport. The introduction of ICDs has far-reaching implications for infrastructure requirements and transport organization. It relieves the port of storage problems but, at the same time, requires a certain minimum standard of road, rail or inland waterway connections between the port and the ICD. Unless ICDs are built, transport of cargo to and from the port will take place through a one-leg distribution system which has the disadvantage of sub-optimum use of inland transport vehicles, increases the strain on the road network, harms the environment, and reduces possibilities for realizing economies of scale.

O. The use of inland waterway transport, railways and short-sea shipping operations in MT to reduce the negative ecological effect of modern transport

64. Shortly after UNCTAD VIII, the United Nations Conference on Environment and Development (UNCED) held a meeting in Rio de Janeiro which highlighted the importance of the environment. This lead to an increased appreciation of the possible harmful effects on the environment of a number of activities including those of the transport field. For example, within the ESCAP region, the "New Delhi Action Plan on Infrastructure Development in Asia and the Pacific" states that "infrastructure development can have a massive and irreversibly detrimental impact on the environment,"[42] and the Organization of Economic Co-operation and Development (OECD) recognizes the activities of the transport sector "as being major courses of environmental and energy problems on every geographical scale".[43] OECD consequently acknowledged that the "relationships between transport and the environment are highly complex and broad of scope... Addressing them requires coordination of national and international organizations on many fronts so that a variety of issues can be tackled simultaneously."[44] Similarly, the Inland Transport Committee of the ECE at its 57th session in January 1995 when adopting its new programme of work, decided, *inter alia*, to undertake a "study of various economic and environmental aspects of combined transport...responding to increasing environmental concerns of the public at large."[45]

65. Until recently MT was used by transport operators that mainly combined ocean transport with either road or rail modes, primarily the former. This has contributed to the saturation of roads and to their degradation as well when overweight vehicles have been used. The (excessive) use of road transport by MTOs, when other, more environmentally friendly modes such as inland waterways or coastal shipping might be used, therefore needs to be addressed.

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42 *Draft New Delhi Action Plan on Infrastructure Development in Asia and the Pacific* (TCT/AIMTCD/2), pp. 17-18.

43 Transport and Environment, Survey of OECD, IEA and ECMT Work, OECD, May 1994, p. 4.

44 *Ibid.*

45 *Draft programme of work 1995-1999* (TRANS/R.394), item 02.7.1(g), p. 18.

66. The holding of UNCED in Rio de Janeiro in June 1992 brought into focus the fact that many of the activities of mankind may potential have a negative environmental effect. This is now widely recognized in both developed and developing countries. This realization has brought about new measures to protect the environment, for example, by transferring the transport of goods from the environmentally unfriendly road mode to the less environment-damaging modes of rail, inland waterway or coastal shipping transport services. In this connection the United States' National Commission on Intermodal Transport stated that the benefits of an intermodal transport system are enormous in that they "offer the promise of: ... reducing energy consumption and contributing to improved air quality and environmental conditions."[46]

67. While Governments, of course, are able to motivate transfers of mode through a series of measures such as increasing taxation of the road users, they are often reluctant to do so for a number of reasons. MTOs, on the other hand, are able, not through taxation but through educated use of each transport mode, to influence the choice of modes in a door-to-door transport.[47] A series of unimodal moves organized by several individual transport providers is less likely to steer a certain transport towards the most environmentally friendly transport mode because each move is seen in isolation. An MTO, "multimodal logistics" or "total logistics provider", on the other hand, may be able to make informed choices of modes in order to gain the largest overall benefit for its client.

68. It has been suggested that greater use of inland waterways or coastal shipping, for example, should be applied to reduce terrestrial congestions. The European Union is currently engaged in an initiative to encourage road traffic towards the railways and, particularly, short-sea shipping. It is submitted that similar initiatives elsewhere in the world to promote the use of "non-traditional" modes of transport in the MT chain might alleviate current heavy road usage with its polluting effects and need for costly road maintenance work.

69. As a first step, a comparative analysis might be undertaken to investigate to what extent such a transfer of modes by MTOs in different countries might be beneficial for the transport environment.

70. The Standing Committee might consider steps an MTO could take to facilitate the choice of transfer of traffic away from road transport towards railways, inland waterway and coastal shipping in a MT chain, resulting in an improvement of the environment and the economic performance. The Standing Committee may also consider how it may shape its policy in this important field so as to emphasize the need for transport providers to use the most environmentally friendly modes. This would make it possible to provide the necessary conditions for a greater use of sea/air, inland waterway transport and short-sea shipping operations in the context of international combined and MT operations. At the same time it may wish to consider the damage to the environment and infrastructure caused by overweight containers. In this connection it is suggested that eco-labelling and eco-certification of MT services may be of interest to the consumers and that a study might be undertaken of the conditions under which such certificates may be issued

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46 Towards a national intermodal transportation system, Final Report, National Commission on Intermodal Transport, Washington, D.C., September 1994, p. 3.

47 See, for example, Short-sea shipping: Via Optima?, "Conference Papers", Second European Research Roundtable Conference on Shortsea Shipping, Delft University Press, Delft, 1994, pp. 198-203.

by a third party professional body.

P. The introduction or use of quality standards for MTOs and freight forwarders

71. A principal factor in the performance of an organization is the quality of its products or services. This was highlighted at the second session of the Standing Committee.[48] There is a worldwide trend towards more exacting customer expectations with regard to quality. Accompanying this trend has been a growing realization that continual improvements in quality are often necessary to achieve and sustain good economic performance.

72. More and more buyers and sellers are insisting on suppliers of products (cargoes) and services (transportation) conforming to the ISO quality standards and it is becoming increasingly possible that they will refuse to do business with companies that do not hold the necessary certification that their business comply with the ISO quality management standards. Several ocean carriers have already introduced quality management standards and the next step is that they will demand that their subcontractors (feeder-service operators, road hauliers, agents, freight forwarders etc.) apply the same stringent standards. In the case of transport providers, shipping companies, MTOs and freight forwarders, it is particularly the standards contained in the ISO document "Quality systems - Model for quality assurance in production and installation" (ISO 9002)[49] which deals with a number of general procedures that are of interest. It would seem important that the MT industry takes measures to deal with this subject as a matter of some urgency, for example, through technical advice and training.

Q. The stimulation of discussions of MT issues within the trade and transport community

73. The work programme established by the first session of the Standing Committee included a strong technical cooperation component. The Trade and Development Board agreed, at the first part of its forty-first session, that the secretariat's technical assistance cooperation contributes to the intergovernmental deliberations, research and analysis,[50] and that the priority objectives of the technical cooperation programmes should include, *inter alia*, transport and human resource developments.[51] It is consequently assumed that the Standing Committee would wish this work to be continued.

74. The execution of a technical cooperation project in the field of MT not only results in a better understanding of the relevant transport issues, but often also in the introduction of more efficient transport in the country concerned. A recently concluded project in one developing country, for example, showed that it was possible, through better planning and coordination between the port,

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48 *Report of the Standing Committee on Developing Services Sectors: Fostering Competitive Services Sectors in Developing Countries - Shipping on its second session, op. cit.*, para. 25, p. 11.

49 Quality systems - Model for quality assurance in production and installation, (ISO 9002: 1987), International Organization for Standardization, Geneva, 1987.

50 *Report of the Trade and Development Board on the first part of its forty-first session* (TD/B/41(1)/14 (Vol.I), Item 9, para. 6, p. 16.

51 *Ibid.*, para. 9 (c), p. 17.

the MTOs and the railways, to reduce the transit time for a container block-train service by one third. Other, relatively minor, benefits came about when the lay-out of a major ICD was modified to improve operations (removal of rubbish, improvement to the outside perimeter, etc.) while the introduction of common minimum trading standards for freight forwarders and their acceptance of a general insurance scheme made it much more attractive for foreign companies to entrust their cargoes to the local transport providers.

75. The biggest "benefit", however, may simply come about by the execution of such a technical cooperation project because it will focus the minds of the many diverse parties involved in the need for cooperation in the transport field, and of the fact that unless the transport sector functions well, the trade of the country is unlikely to remain competitive.

Information Retrieval

KEY WORDS

ACIS, coastal trade, Cartagena Commitment, Committee on Shipping, competitiveness, container dimensions, containerization, ecological impact, Economic Commission for Europe, ECOSOC, EDI, EDP, EDIFACT, environmental damage, Group of Experts on Multimodal Transport, INCOTERMS, inland waterways, International Chamber of Commerce, ISO standards, liberalization, mega multimodal transport operator, MT Convention, MT-Handbook, MT Newsletter, mega multimodal transport operators, minimum standards, MMTO, multimodal transport operator, MULTISHIP, niche operators, non-vessel operating MTO, poverty alleviation, Review of Maritime Transport, short-sea trades, Standing Committee on Services Sectors, technical co-operation, technological developments, telematics, trade efficiency, TC 104, TRAINMAR, UNCITRAL, UNCTAD VIII, UNCTAD IX, VO-MTOs, work programme.

ABSTRACT

Status of the work programme in the field of multimodal transport, technological development, logistics and containerization. List of outstanding issues and enumeration of possible future action by the Standing Committee on Services Sectors (shipping) in these fields.

The report contains an introduction, a summary and conclusions and two chapters which cover the following:

Chapter I: Presentation of the results of the work carried out to date; and

Chapter II: Outstanding issues.